

ABSTRACT OF THE DISCLOSURE

- 25 Refractory metal products, such as tantalum on non-refractory conductive metal backings, e.g. copper, can be rejuvenated after metal consumption in selected zones by powder filling the zones and high energy heating at high scan speed to sinter the added powder, without complete melting of the powder fill, thus establishing a microstructure consistent with the balance of the reclaimed product and avoiding the separation of the copper backing and tantalum sputter plate. The rejuvenation method can be applied to non-mounted refractory metal products that are subject to non-uniform erosion, etching, chipping or other metal loss. The form of such refractory metal products can be as plate, rod, cylinder, block or other forms apart from sputter targets. The process can be applied to, for example, x-ray disks or targets (molybdenum plate on carbon backing).

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